

# MASTERPREN<sup>®</sup> 1000

Self adhesive, bituminous waterproofing membrane

## DESCRIPTION

**MASTERPREN 1000** is a self-adhesive, bituminous membrane lined with cross laminated, high density polyethylene film, oriented to give optimum strength to the membrane.

The membrane is designed for application onto surfaces, both above and below ground, to keep water and water borne aggressive salts from penetrating into substrates.

## RECOMMENDED FOR

**MASTERPREN 1000** is recommended for both external and internal tanking. Applications include:

- Tanking of basement walls before earth fill.
- Waterproofing of terraces against rainwater.
- Internal tanking of concrete reservoirs to prevent stored water from penetrating and damaging the structure.
- External tanking of underground sumps to prevent the contamination of stored water by the seepage of ground water.

## FEATURES AND BENEFITS

- **Impermeable**-Protects substrate from the ingress of water and water borne salts.
- **Flexible**-Bridges active cracks without rupturing.
- **Cross laminated with HDPE**- Superior tensile strength and puncture resistance. Extends durability.
- **Self sealing**-Retains waterproofing integrity even if accidentally punctured.
- **Self adhesive and cold applied**- Easy to lay. Saves time and labour. Safe.

## PERFORMANCE DATA

Elongation of membrane (DIN 52123)	Long. :370% Tran. :210%
Tear resistance (UNI 8202/9)	Long. : 83.0 N Tran. : 73.7 N
Tensile strength (DIN 52123)	Long. : 5.0 N/mm Tran. : 5.4 N/mm
Adhesion to primed concrete (ASTM D1000)	4.9 N/mm
Puncture resistance (DIN 16726)	160mm
Water vapour transmission (ASTM E96)	0.05g/m <sup>2</sup> /hr.

## ESTIMATING DATA

One roll of **MASTERPREN 1000** after deducting for the overlaps, covers an area of 19.7 m x 0.8 m i.e., coverage is approximately 15.76 m<sup>2</sup> per roll. However, slightly higher consumption is possible while treating oddly shaped areas, or where too many joints are required.

## PROPERTIES

Supply form	Sheets	
Backing (HDPE)	Thickness	0.10 mm
Membrane thickness	Thickness	1.40 mm
	Colour	Black
Total thickness		1.50 mm
Cold flexibility (EN 1109)		>-40°C
Service temperature		-30° to 80°C

## APPLICATION

### Surface Preparation

Correct substrate preparation is critical for optimum performance.

Surfaces should be structurally sound, clean, and free from loose particles, oil, grease, or any other contaminant. Cement laitance, mould release agent, curing membrane and other contaminants must be removed by wet grit blasting, high pressure water blast, or such other effective methods.

Fill surface irregularities such as blowholes, honeycombs etc., with **EMACO NANOCRETE FC** repair mortar to achieve a smooth and level surface. Repair cracks either by resin injection or by caulking depending on the nature of cracks. Where needed provide expansion joints and seal them with **SONOLASTIC NP1** or **SONOLASTIC Ultra** (see separate data sheets). Consult BASF Construction Chemicals for advice on repair methods.

### Priming

Use **MASTERPREN 2000 Primer** or a similar bituminous primer. Apply the primer by brush or roller over the prepared substrate at a rate of 6-8 m<sup>2</sup> per litre. Lay the membrane after the primer reaches touch dry state. Prime only an area that can be covered within the working day.

Note: Priming is essential on vertical surfaces. It may be omitted, depending on surface conditions, on horizontal faces.

### Placing

It is important to lay the membrane without creases. Peel back the release paper to a length of about 30 cm and stick the membrane onto the prepared substrate, starting preferably from one end of the area.

Unwind the roll in a straight line, without creasing by pulling the release paper carefully. Using a rubber roller, simultaneously smooth the membrane from the centre outwards to the edges for optimum adhesion and to expel any entrapped air. After one roll has been installed and smoothed, lay the next roll with at least 150mm overlap at the ends and 100mm along the edges. Ensure total bonding at the overlap by using the roller.

Note: The detailing at external and internal corners and penetrations of pipes, cables, ducts, etc., must be carefully carried out before commencing application of horizontal sections of the membrane.



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While covering vertical faces, always start from the top. Chase the membrane into a reglet or groove, or temporarily batten it to prevent it from falling while laying. The battens can be removed after the whole face has been covered.

Provide suitably designed flashings at the reglet or grooves where the membrane is chased in, over the membrane edge on the vertical surface and above every projection from the vertical surface such as pipe lines, ventilators, air conditioners, etc. Consult an BASF Construction Chemicals technical representative for advice.

At the corners between vertical and horizontal maintain an overlap of at least 100 mm. It is recommended that the horizontal area is first laid followed by the vertical, so that the vertical membrane laps over the horizontal one.

If the membrane has ballooned at a few spots after laying due to entrapped air or water, puncture the bubbles with a sharp needle. The pin holes will heal by themselves during the smoothing process.

Temporarily protect the membrane from mechanical damage during application using polystyrene boards or similar approved methods.

After completion, protect the membrane by Sonoshield Protection Board followed by a screed, paving soil infill or by lining with tiles to prevent mechanical damage in service.

## PACKAGING

**MASTERPREN 1000** is supplied in rolls of 1 m wide and lengths of 20 m.

## SHELF LIFE

**MASTERPREN 1000** can be stored in tightly sealed original packing for 12 months, when kept dry at temperatures between 5°C and 40°C.

## PRECAUTIONS

**Health:** **MASTERPREN 1000** is a safe product to use. Handling of the product normally does not pose any risks of eye or skin irritation. Wash thoroughly after handling.

**Fire:** **MASTERPREN 1000** is flammable when exposed to naked flames.

**Traffic:** **MASTERPREN 1000** is not suitable for foot or vehicular traffic.

For the full health and safety hazard information and how to safely handle and use this product, please make sure that you obtain a copy of the BASF Construction Chemicals **Material Safety Data Sheet (MSDS)** from our office or our website.

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### STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this **BASF** publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

### NOTE

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**BASF Australia Ltd**  
A.B.N. 62008437867  
Head Office: 11 Stanton Road Seven Hills, NSW 2147  
Ph. (02) 8811 4200

Newcastle (02) 4961 3819  
Canberra (02) 6280 6010  
Brisbane (07) 3633 9900  
Townsville (07) 4774 7344  
Melbourne (03) 9549 0300

Adelaide (08) 8139 7500  
Perth (08) 9366 2600  
Darwin (08) 8984 3269  
Kalgoorlie 0417 772 355

**BASF New Zealand Ltd**  
**BASF WEB SITES**

Head Office: 45 William Pickering Drive, Albany, Auckland Ph: (09) 414 7233  
www.basf-cc.com.au www.basf-cc.co.nz www.meyco.basf.com